

REMARKS/ARGUMENTS

Claims 21-40 are pending in this Application.

New claim 41 has been added. Applicants submit that support for the newly added claims can be found throughout the specification and the drawings.

Claims 21-41 are now pending in the Application after entry of this Amendment. No new matter has been entered.

In the Office Action, claims 21-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0184565 to Georgiev (hereinafter "Georgiev"), in view of U.S. Patent No. 6,459,439 to Ahlquist et al. (hereinafter "Ahlquist").

Claim Rejections Under 35 U.S. C. § 103(a)

Applicants respectfully traverse the rejections to claims 21-40 and request reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) based on Georgiev in view of Ahlquist. The Office Action alleges that the combination of references teach or disclose all of the claimed limitations of the corresponding claims and that one having ordinary skill in that art at the time of the invention would have been motivated to incorporate the teachings of Georgiev with the teachings of Ahlquist.

Applicants, however, respectfully submit that a prima facie case of obviousness has not been established by the evidence presented in the Office Action. In order to establish a prima facie showing of obviousness, three requirements must be satisfied: all limitations of a pending claim must be expressly or impliedly disclosed by prior art references; there must be a suggestion or motivation in the art for the ordinarily skilled artisan to combine the limitations; and there must be a reasonable expectation of success in making such a combination. (M.P.E.P. § 2143).

Applicants respectfully submit that Georgiev and Ahlquist, either individually or in combination, fail to teach or suggest one or more of the claim limitations recited in each of claims 21-40.

Claim 1

For example, the Office Action acknowledges that Georgiev fails to disclose the features recited in claim 1 of “receiving a set of strength fields corresponding to the set of feature specifications, the set of strength fields defined over the undeformed model for scaling the magnitude of transformations in the set of transformations to generate a set of scaled transformations” and “receiving, independent of the set of strength fields, a set of weighting fields corresponding to the set of feature specifications, the set of weight fields defined over the undeformed model for determining the relative influence of the set of scaled transformations.”

Thus, Georgiev cannot also disclose the feature recited in claim 1 of “generating the deformed model independent of receiving the set of feature specifications using a graphical warp through transformation of the undeformed model to the deformed model by applying the set of transformations, the set of strength fields, and the set of weighting fields to the undeformed model” (emphasis added) as alleged in the Office Action. Georgiev simply discloses that the warped image is generated using the analytic function, which the Office Action alleges is the set of transformations recited in claim 1. Georgiev does not teach or suggest the features recited in claim 1 of “receiving a set of strength fields...to generate a set of scaled transformations” and “receiving...a set of weighting fields...for determining the relative influence of the scaled transformation.”

The Office Action is required to establish that the missing limitation is found in another reference; that there is a suggestion or motivation in the art for the ordinarily skilled artisan to combine the limitations; and there must be a reasonable expectation of success in making such a combination. Therefore, the Office Action is required to establish that one or more other references disclose the features recited in claim 1 of “receiving a set of strength fields...to generate a set of scaled transformations,” “receiving...a set of weighting fields...for determining the relative influence of the scaled transformation,” and “generating the deformed model...using...the set of strength fields, and the set of weighting fields...” The Office Action further is required to establish that one ordinarily skilled in the art would be motivated to combine the limitations. The Office Action fails to do so.

The Office Action appears to continue to rely on the disclosure of Ahlquist to support its burden of establishing a prima facie case of obviousness to cure the above deficiencies of Georgiev. The Office Action states that Ahlquist discloses a letter M being deformed wherein tools are used to deform the model and wherein the pulling tool has a pressure parameter and a length parameter. (Office Action: Page 3). However, the Office Action fails to establish that the pressure parameter and the length parameter of the pull tool are equivalent to fields defined over an undeformed model as recited in claim 1.

For example, claim 1 recites a set of strength fields and a set of weighting fields defined over the undeformed model.
(See Application FIG. 3A at right).

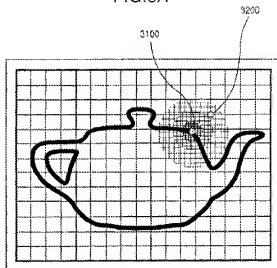
A tool in Ahlquist simply includes a corresponding function that determines a destination point from a source point input. Variables of the function can be modified by the user. Thus, the parameters or variables that can be set by a user in Ahlquist are substantially different from the fields recited in claim 1. Moreover, the fact that the tool can be positions or “waved” over a model is substantially different from fields defined over the undeformed model as the set of set of strength fields and the set of weighting fields recited in claim 1.



Furthermore, even if adjusting the pressure or length parameter for the sake of argument created a field, the field would correspond to the tool, rather than corresponding to a set of feature specifications as recited in claim 1. Again, simply waving the tool over the path to be deformed fails to provide any correspondence between the tool and a point on the path. (See Ahlquist, FIG. 2A).

The Office Action then states that a skilled artisan would be motivated to modify Georgiev’s system by using Ahlquist’s tools to modify the first contour of Georgiev to arrive at

FIG.3A



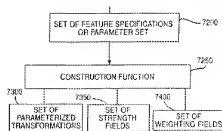
the second contour of Georgiev. Thus, according to the reasoning in the Office Action, the combination of Georgiev and Ahlquist would allow a user to modify the source feature recited in claim 1 into the target feature. However, Georgiev already provides a suggestion in paragraph [0035] to do what the Office Action suggest, where Georgiev suggests using some path tools, such as Adobe Photoshop or Adobe Illustrator, to modify the source contour into the destination contour. Ahlquist is similarly directed to editing tools that allow the reshaping of "line paths." (Ahlquist: Field of the invention).

The Office Action though has failed to identify where Ahlquist discloses the features of "receiving a set of strength fields...to generate a set of scaled transformations," and "receiving...a set of weighting fields...for determining the relative influence of the scaled transformation," and a motivation to incorporate the missing limitation to generate a deformed model using the set of strength fields and the set of weighting fields as recited in claim 1.

Thus, the Office Action not only fails to identify where Ahlquist supplies the missing limitations from Georgiev, but also fails to provide a suggestion or motivation in the art for the ordinarily skilled artisan to make such as combination. Accordingly, the Office Action fails to support a prima facie case of obviousness. Thus, Applicants respectfully submit that Georgiev and Ahlquist, either individually or in combination, fail to teach or suggest each and every claim limitation recited in claim 1. Therefore, Applicants respectfully submit that claim 1 is allowable over the cited references.

Claim 30

In another example, the Office Action acknowledges that Georgiev fails to teach or suggest the feature of "determining, based upon the parameter set, a set of transformations that map a source feature defined over the undeformed model to a target feature defined over the undeformed model, a set of strength fields defined over the undeformed model, and a



set of weighting fields defined over the undeformed model” and also fails to teach or suggest the feature of “determining a deformation function based upon the set of transformations, the set of strength fields, and the set of weighting fields.” (See Application: FIG. 7A).

Similar to claim 1, the Office Action alleges that missing limitation are provided by the length parameter and the strength parameters of Ahlquist. Applicants respectfully disagree.

First, as discussed above, the length parameter and the strength parameters of Ahlquist are variables of the tool in Ahlquist and are neither fields nor defined over the undeformed model as recited in claim 30.

Next, the Office Action simply suggests that combining Ahlquist with Georgiev would allow modification of the first contour to the second contour. However, claim 30 recites that a deformation function is determined in addition to the set of transformations. The Office Action merely copies the remaining rejection of claim 1, and fails to address where the combination of Ahlquist with Georgiev further determines a deformation function as recited in claim 30.

Finally, the motivation to combine Ahlquist with Georgiev is severely lacking any relationship to the features recited in claim 30 that are missing from Georgiev. As discussed above, modifying the first contour into the second contour with a pull tool like in Ahlquist was already envisioned in Georgiev, and this their combination add nothing further to teach or suggest the missing limitations from Georgiev.

Accordingly, Applicants respectfully submit that Georgiev and Ahlquist, either individually or in combination, fail to teach or suggest each and every claim limitation as recited in claim 30. Thus, Applicants respectfully submit that claim 30 is allowable over the cited references.

Claims 21-41

Applicants respectfully submit that independent claims 32, 34, 37, 39, 40, and 41 are allowable for at least a similar rationale as discussed above for the allowability of claims 21, 30, and others. Applicant respectfully submits that dependent claims 22-29, 31, 33, 35-36, and

38 that depend directly and/or indirectly from the independent claims 21, 30, 32, 34, 37, and 39 respectively, are also allowable for at least a similar rationale as discussed above for the allowability of the independent claims. Applicant further respectfully submits that the dependent claims recite additional features that make the dependent claims allowable for additional reasons.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5000.

Respectfully submitted,

/Sean F. Parmenter/
Sean F. Parmenter
Reg. No. 53,437

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 925-472-5000
Fax: 415-576-0300
SFP:lls
61173690 v1